Name Date

Applying Knowledge
Section 6.1

Use with textbook pages 188–190.

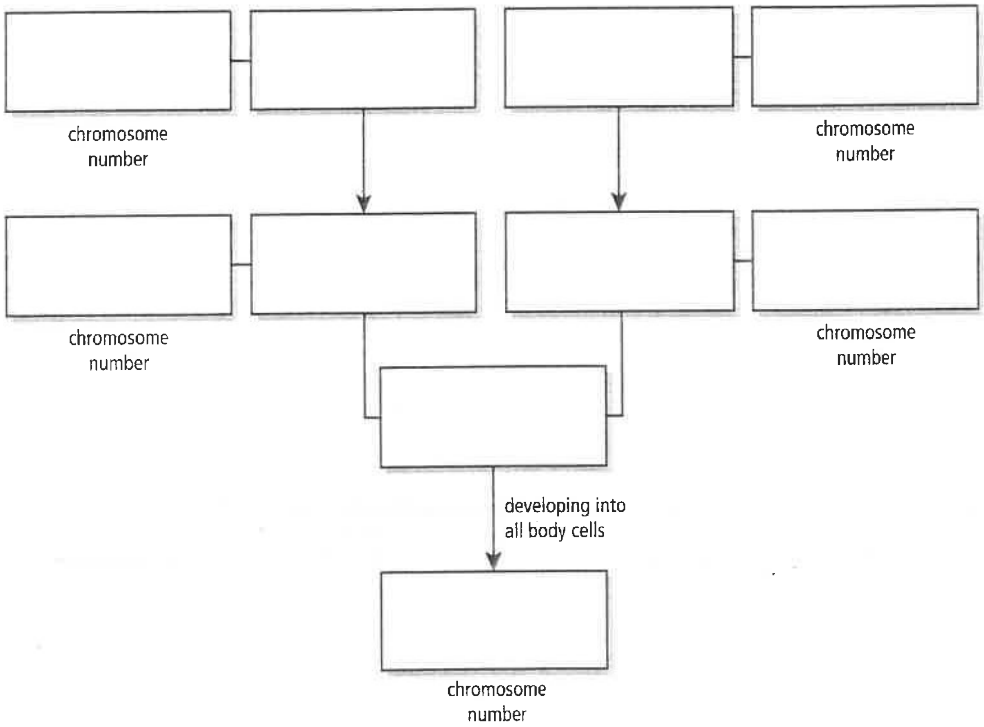
The role of gametes

1. Complete the table to show the number of chromosomes for different organisms. The table has been partially completed to help you.

Organism	Diploid number (2n)	Haploid number (n)
human		
fruit fly	8	
black bear		38
peanut	20	
chimpanzee		48

2. Use the terms in the box below to fill in the blanks in the meiosis flow chart. You can use each term more than once. You will not need to use every term.

Choices for chromosome number	Choices for other blanks
diploid	egg cell
haploid	female parent
	fertilization
	male parent
	sperm cell



Name Date

Cloze Activity
Section 6.1

Use with textbook pages 191–193.

What happens in meiosis?

Vocabulary	
2	fertilization
3	gametes
4	haploid
23	meiosis
46	meiosis I
body cell	meiosis II
chromosome	mitosis
diploid	zygote
embryo	

Use the terms in the vocabulary box to fill in the blanks. You can use each term more than once. You will not need to use every term.

1. Female and male organisms produce specialized cells called _____ that are necessary for reproduction. Eggs are the _____ from female parents. Sperm are the _____ from male parents.
2. During sexual reproduction, the gametes from the two parents combine during a process called _____ to form a new cell called a _____.
3. As the zygote undergoes repeated _____ and cell division, it matures into a(n) _____.
4. A human diploid body cell has _____ pairs of chromosomes.
5. Human gamete cells have a total of _____ chromosomes. Gametes are said to be _____.
6. During meiosis, each _____ in a cell is duplicated once and then the cell divides twice.
7. The first division of the cell is called _____, which starts with a diploid cell and finishes with two haploid cells.
8. Each of the two haploid cells undergoes a second division called _____, which starts with two haploid cells and ends with four haploid cells.
9. Meiosis starts with one _____ cell and ends with _____ haploid cells.